Volume 218 September 1990

CONTENTS

Sand ripples under sea waves. Part 1. Ripple formation. P. BLONDEAUX *page* 1

Sand ripples under sea waves. Part 2. Finite-amplitude development. G. VITTORI and P. BLONDEAUX 19

Bubble dynamics in time-periodic straining flows. I. S. KANG and L. G. LEAL 41

On the formation and suppression of vortex 'shedding' at low Reynolds numbers. P. J. STRYKOWSKI and K. R. SREENIVASAN 71

Similarity of the concentration field of gas-phase turbulent jets. DAVID R. DOWLING and PAUL E. DIMOTAKIS 109

A generalization of the impulse and virial theorems with an application to bubble oscillations. HASAN N. OGUZ and ANDREA PROSPERETTI 143

On the stability of gravity waves on deep water. CHRISTIAN KHARIF and ALFRED RAMAMONJIARISOA 163

The effect of anisotropic wall compliance on boundary-layer stability and transition. PETER W. CARPENTER and PHILIP J. MORRIS 171

The propagation of detonation waves in channels of varying cross-section. F. BARTLMÄ 225

Dynamics and sound emission of a spherical cavitation bubble in a dilute polymer solution. G. RYSKIN 239

Transition to turbulence in two-dimensional Poiseuille flow. JAVIER JIMÉNEZ 265

The absorption of sound by perforated linings. I. J. HUGHES and A. P. DOWLING 299

Solidification of an alloy cooled from above. Part 3. Compositional stratification within the solid. ROSS C. KERR, ANDREW W. WOODS, M. GRAE WORSTER and HERBERT E. HUPPERT 337

Transient bubbles interacting with an attached cavity and the boundary layer. L. BRIANÇON-MARJOLLET, J. P. FRANC and J. M. MICHEL 355

Turbulent structure in a channel flow with polymer injection at the wall. D. T. WALKER and W. G. TIEDERMAN 377

Experimental support for the attached-eddy hypothesis in zero-pressure-gradient turbulent boundary layers. A. E. PERRY and J. D. LI 405

Spatial organization of large structures in the turbulent far wake of a cylinder. D. K. BISSET, R. A. ANTONIA and L. W. B. BROWNE 439

Structure of large-scale vorticity in a turbulent far wake. D. K. BISSET, R. A. ANTONIA and D. BRITZ 463

Collapse in conical viscous flows. M. A. GOLDSHTIK and V. A. SHTERN 483

On the behaviour of a suspension of conducting particles subjected to a time-periodic magnetic field. H. K. MOFFATT 509

Asymmetric Stokes flow between parallel planes due to a rotlet. W. W. HACKBORN 531

The free-surface signature of unsteady, two-dimensional vortex flows. DEQUAN YU and GRÉTAR TRYGGVASON 547

A purely elastic instability in Taylor–Couette flow. R. G. LARSON, ERIC S. G. SHAQFEH and S. J. MULLER 573

The breakup of viscous jets with large velocity modulations. D. W. BOUSFIELD, I. H. STOCKEL and C. K. NANIVADEKAR 601

Effect of the air on the drift velocity of water waves. JAN ERIK WEBER and EVEN FØRLAND 619

Instability of a viscous liquid jet surrounded by a viscous gas in a vertical pipe. S. P. LIN and E. A. IBRAHIM 641

REVIEWS

Applied Environmetrics Meteorological Tables, by T. Beer 659

Cavitation, by F. Ronald Young 660

Principles of Magnetoplasma Dynamics, by L. C. Woods 661

CORRIGENDUM 663

INDEX TO VOLUME 218 664